

Claims

What is claimed is:

1. A method for ensuring minimal error in weighing devices, comprising:

- 5 a) setting said weighing device at a zero point;
 b) successively placing one or more standard test loads on said weighing device at a plurality of distinct testing positions located in about a peripheral two-thirds of a weight-receiving surface of said weighing device, said loads being measured by said weighing device at
10 discrete instances such that said testing positions are utilized individually to measure a selected load;

 c) determining weight error displayed by said weighing device at each of said testing positions;

- 15 d) summing said distinct measured weight errors into a summed error; and

 e) comparing said summed error to a desired tolerance level, such that weighing devices exhibiting summed errors in excess of said tolerance level may be
20 identified as being in need of corrective action, including calibration.

2. A method as in Claim 1 wherein said testing positions are substantially equidistant from one another, and distributed substantially evenly about said weight-receiving surface.
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3. A method as in Claim 1 wherein a common said selected test load is utilized at each of said testing positions.

4. A method as in Claim 3 wherein said selected test
30 load is one-fourth to one-half of the designated weight capacity of said weighing device.

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6. A method as in Claim 1 wherein said standard test
5 loads are successively placed at at least four of said
distinct testing positions.

8. A method as in Claim 1 wherein said tolerance level is one-half of a standard maintenance tolerance.

10. A method as in Claim 1 wherein said weighing device is a Class III scale.

20 a) leveling said weighing device with leveling
 means;

c) visually inspecting or passing a thin tool
25 between said weight-receiving surface and a housing of said
weighing device to ensure that said weighing device is free
from obstructions which could impede its operational
functions; and

d) repairing or replacing broken or missing
30 elements of said weighing device.

Figure 1 displays 12 histograms comparing the distribution of various variables for two groups: 'low' and 'high'. The variables are listed on the left side of the figure, and the histograms are arranged in a 6x2 grid. The x-axis for all histograms is 'Value' and the y-axis is 'Density'.

- 1. Age: low, high
- 2. Age squared: low, high
- 3. Age cubed: low, high
- 4. Age squared times age cubed: low, high
- 5. Age squared times age cubed squared: low, high
- 6. Age squared times age cubed squared times age cubed: low, high
- 7. Age squared times age cubed squared times age cubed squared: low, high
- 8. Age squared times age cubed squared times age cubed squared times age cubed: low, high
- 9. Age squared times age cubed squared times age cubed squared times age cubed squared: low, high
- 10. Age squared times age cubed squared times age cubed squared times age cubed squared times age cubed: low, high
- 11. Age squared times age cubed squared times age cubed squared times age cubed squared times age cubed squared: low, high
- 12. Age squared times age cubed squared times age cubed squared times age cubed squared times age cubed squared times age cubed: low, high

12. A method as in Claim 1 wherein said calibration includes utilizing a 2000 division weight range to obtain a desired tolerance level.

13. A method for minimizing error in weighing devices,
5 comprising:

a) setting said weighing device at a zero point;

b) successively placing one or more standard
test loads on said weighing device at a plurality of
distinct testing positions located in about a peripheral
10 two-thirds of a weight-receiving surface of said weighing
device, said loads being measured by said weighing device at
discrete instances such that said testing positions are
utilized individually to measure a selected load;

c) determining a measurement error displayed by
15 said weighing device at each of said testing positions;

d) comparing said measurement error to a desired
tolerance level, such that weighing devices exhibiting
measurement errors in excess of said tolerance level undergo
one or more corrective actions, said corrective actions
20 being selected from one or more of the group consisting of:

i) leveling said weighing device with
leveling means;

ii) cleaning said weighing device,
particularly under said weight-receiving surface of said
25 weighing device;

iii) visually inspecting or passing a thin
tool between said weight-receiving surface, and a housing of
said weighing device to ensure that said weighing device is
free from obstructions which could impede its operational
30 functions; and

iv) repairing or replacing broken or missing
elements of said weighing device.

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14. A method as in Claim 13 wherein said testing positions are substantially equidistant from one another, and distributed substantially evenly about said weight-receiving surface.

- 5 15. A method as in Claim 13 wherein said selected test load is one-fourth to one-half of the designated weight capacity of said weighing device.

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